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An analysis on play and playmate preferences of 48 to 66 months old children in the context of gender

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This research was conducted to analyze play and playmate preferences of preschool girls and boys during free play time. The study group consisted of 48-66 months old preschool children. There were ten girls, seven boys and a preschool teacher in the study group. They were all selected from a public preschool in Cukurova, a district of Adana a city in the south of Turkey in the fall semester of 2014 to 2015 academic year. For two weeks children were observed during their free play time. In addition, the children and teacher were interviewed to determine the play and playmate preferences of the children. An interview with each child took approximately 5 to 6 minutes, whereas the interview with the teacher took 20 minutes. In this research, content analysis method was applied at the data analysis phase. The outcomes of the analysis indicated that there were differences between play area, type of play and playmate preferences between girls and boys. Research indicated that girls usually opt for dramatic (pretend) play such as playing house, role play and gets in role as doctor, mother or kid; while boys prefer to play with blocks and lego for construction and building purposes (block center). The research results show gender effects on girls and boys play behaviors.

Key words: Preschool education, gender roles, play and playmate preference, play type, play behaviors.

INTRODUCTION

Play is defined as a series of meaningful activities which are developed by children themselves. In addition, play includes components of effective learning such as providing opportunity for independence, and learning in terms of social context (Sevinç, 2009).

According to Yavuzer (2006), play consists of physical, educational, social and moral values. A lot of researchers such as Piaget, Freud and Parten had analyzed the phases of play. These researchers said that children's behaviors related to play change in accordance with some parameters such as age and their development levels (Orçan, 2008).

It cannot be underestimated that play contributes to the social development of children. While they play, girls model their mothers and boys model their fathers. This kind of modeling consolidates gender roles. Children learn family, relative and neighborhood relations by pretending as family members and they are.

Reflecting their learning from these people's duties, responsibilities, behavioral patterns and personalities while experiencing it in their life (Orçan, 2008). Several variables mentioned in socialization affect the forming of children's plays. For instance, *culture* affects the play preferences of both girls and boys. Children's play, toy

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preferences and group mate preferences differ in accordance with gender roles ascribed by their trait and culture (Rubin et al.,1983).

In many cultures, children learn to play by simulating/imitating previous generation. Climate and seasonal conditions also impact on choice of play. Play types including active plays and sports are preferred more in cool seasons; sports and plays which do not require more energy are preferred in warm weather. Gender is another significant factor of play type. For example, according to the results of a research study carried out in Istanbul, girls like skipping, stopping, dodge ball, hide and seek, hopscotch and playing tag; while boys like soccer, running, hide and seek and playing marble (Yavuzer, 2006).

The gender of the child has an effect on his/her play behaviors such as toy preferences, play types and playmate preferences. The study of Yavuzer (2006) which was conducted with 562 participants (270 children from different socio- economic and cultural background, 240 parents, 52 pharmacists and toy sellers) using 3 factor is different surveys revealed that gender significantly influential on toy preferences of children. According to indicators of the study, girls mostly prefer doll and model toys and blocks; in turn, boys mostly prefer toy cars, battery-operated toys and remote controlled toy, ball, toy gun and blocks. These series were confirmed by both parents and toy sellers. Studies on playmate preferences of young children in free play time revealed that from preschool years to middle childhood period, children spend more time with same gender peers (Maccoby, 1998).

In preschool years, girls especially keep away from boys. Gender differences in playmate preference become clearer at age of 3 and girls prefer other girls as playmates and boys prefer to play with other boys. A study of Carol Maccoby and Jacklin (1987) which was conducted with 33 months old children, revealed that both girls and boys play more effectively with peers of the same gender. Literature on children's play and playmate preferences were reviewed with similar results (Maccoby, 1998; Golombok et al., 2008).

Play and playmate segregation between girls and boys may have been caused by play style diffrences. Boys like to play in outdoors and they play more active, rough-and-tumble play (RTP hereafter) (running, chasing, and fleeing), whereas girls like to talk more to each other and play indoors. In her study, Harbin (2016) examined gender differences in rough and tumble play (RTP) behaviors. She found that boys participated in RTP more than girls and the forms of RTP in which boys were more aggressive.

There are three broad theoretical frameworks, from a range of theories which have been put forward to explain how gender preferences occur. Theories include biological, social learning, and cognitive developmental approaches. Biological approaches emphasize hormones and genetics effects on gendered behaviors. On the other

hand, social learning approaches emphasize peer, family and larger societal structures effects on gendered behaviors, whereas, cognitive approaches underline construction of gender schemas (Berenbaum et al., 2008). All these approaches indicatted that sex-typed behavior begins at age 2.5.

In preschool and middle school years, social learning approach are apparent and are probably relatively stable, and the cognitive processes of gender concept formation and gender schematization occur during these years (Golombok et al., 2008). As seen there are studies investigating gender differences in children play and play behaviors.

However, in Turkey, the number of studies on gender factor in children plays and playmate preferences are not sufficient. Since the preferences and behavior of children in the rapidly changing world can change, children's play behaviors should be reconsidered in terms of changing contexts. In this regard, the main objective of this research was to determine the play and playmate preferences of 48 to 66 months old girls and boys in free play time.

METHODOLOGY

This research is a qualitative case study that aims to investigate 48 to 66 month old children's play and playmate preferences. The research was carried out in the fall semester of the 2014 to 2015 academic year. The most basic feature of qualitative research is to try to examine the events and values from the participants' perspective. It is an important strategy to try to find out what participants mean by explaining and using specific languages, meanings and concepts they use and create (Ekiz, 2003). In the case study, one or more of the factors related to the situation are investigated and a detailed investigation is made about how they affect the situation and how they are affected by the situation (Yıldırım and Şimşek, 2006). In this research, it was deemed appropriate to conduct a case study since study focused on participants natural play environments and experiences.

Participants

The study group was identified using a convenience sampling from non-probabilistic sampling. The study group of the research consisted of all 48 to 66 months old children in the selected preschool class in the 2014 to 2015 fall semester. There were 10 girls and 7 boys in the classroom. The sampled public preschool was in Cukurova district in Adana a city in the south of Turkey and a preschool teacher. In order to follow ethical rules and protect privacy, code numbers and names were given to preschool children, the teacher and kindergarten.

Data collection tools

Structured observation and semi-structured interview techniques were used to collect the data. In this regard, data sources and data collection methods were diversified in the research. As well as the collection of both interview and observation data, collecting data from different data sources like teacher and child had significant importance in terms of the validity and reliability of the study. Within

the scope of the research, the play of the children was observed during free play time (for an hour) throughout two weeks between 1st to 15th December 2014. In addition, interviews were held with the children and kindergarten teacher. In the interviews children were asked to state their play behaviors based on open ended questions. Questions' expressions were like, "What is/Who is your favorite play/playmate?, Do you like to play with girls/boys?, if you had a chance to play with someone in the classroom would you prefer to play with a girl or boy? why? etc. Interviews were also held with teacher about each child's plays types and playmate preferences.

Data analysis

In this research, content analysis method was applied at the data analysis phase. All interviews were transcribed by hand and coded. To code and determine the main themes, the types of plays, playgrounds and playmate that the girls and boys prefer during their free play time were described. Later, tables were used to present these concepts and themes. Following the analysis, direct citation was used in the presentation of the findings to ensure that the existing situation during the interviews and observations can be animated in the mind of the reader and to increase its reliability. Some abbreviations were used such as, K for girls in kindergarten, E for boys in kindergarten and O for teacher in kindergarten.

FINDINGS

Findings regarding play types of girls and boys

The types of play categories are based on Duman (2010) classification, like dramatic play, construction and building play, manipulative play, animated play, structured table/card play, non-structured/semi-structured art activity, computer activity and rough and tumble play (Duman, 2010).

Since children had never played any structured table/card play during the observations, this play type was not added to the table. Additionally, due to the fact that the children were not allowed to play or use materials such as water and finger painting in the classroom except for the art activities supervised by the teacher, such kind of play was not observed. Frequencies were calculated by counting the repetitions of the plays of boys and girls in the observations made during their free play time. Frequency distribution of girls play types is shown in Table 1. In terms of the number of plays, the following classification is used as a determinant; 1>: None, 1-2: Rarely, 3-4: Occasionally, 4<... frequently. When the play frequency is evaluated, it is also taken into consideration how much space the child gives to the type of play within the total number of plays.

When Table 1 is considered, it is observed that the girls usually played dramatic plays in 5 h observations which are divided into time intervals of 10 to 15 min. The dramatic play was followed by animated plays, computer activities, art activities, passive events, construction and building plays and finally manipulative

plays. During the observations, the girls never played a rough and tumble play, and the teachers and children did not say that girls engage with play. The kindergarten teacher and children gave the following answers that support the observation findings of this study when they were asked which types of play girls prefer during their free time activities;

"They usually like playing house. Children take the role of parents... They also like to cook and serve in the kitchen. In addition, they like to paint in free times. (O, 15.12.2014). We like playing house the most. (K7, 16.12.2014)"

The frequency distribution of the boys' play in free time is shown in Table 2. In terms of the number of plays, the following classification is used as a determinant; 1>: None, 1- 2: Rarely, 3-4: Occasionally, 4<: frequently. When Table 2 is examined, it is observed that the boys play construction and building play the most. Construction and building play are followed by dramatic plays, animated play, computer play and finally rough and tumble play respectively. It is observed that the frequencies of dramatic play and animated play are close to each other. Boys do not prefer passive play and art activities in their free play time. The preschool teacher and children gave the following answers that support the findings of this study when they were asked which type of play boys played in their free time activities;

"They like blocks so much. Additionally, there like nopers and jigsaw puzzles. Even if they are not allowed to do so, they always make a sword or a gun. In general, blocks are very attractive for them (O, 15.12.2014)".

The reasons why boys play construction and building play most among all the types of play can be explained by the fact that construction and building play materials are scattered in the middle of the classroom. Boys love to make war-toys like guns, as seen in the direct citations above. Boys used construction and building play toys like legos and blocks to play any kind of war play like fighting, policing or role play-pretending like animals. Observational data also support that boys use construction and building toys to make guns and engage in war play. During the observation on 09.12.2014, this situation was recorded by the expressions below;

"E5, E8, E7 and E2 played together in the middle of the class with different shapes of toy blocks. When I asked them what they were doing, they said they were making "guns" (09.25). E5, E8, E7 and E2 were constructing various shapes with toy blocks in the playground which was encircled with big rubber blocks in the middle of the class. After a while they pretended to

Table 1. Frequency distribution of play types of girls.

					Fre	quen	су				Tune of play			
K1	K2	К3	K4	K5	K6	K7	K8	K9	K10	Total (f)	Type of play			
10	3	1	8	-	7	7	2	2	3	43	Playing house, role play-pretend play	Dramatic		
-	2	3	3	-	-	1	-	-	2	11	Blocks, Legos, Nopers	Cons- building		
7	3	4	4	-	1	5	2	4	1	31	Tag, hide and seek, turning around jumpin- to cushion, ball plays (dodge ball, keep yuppy)	g Animated		
-	1	1	-	1	-	-	1	-	1	5	Jigsaw puzzle, detachable toys	Manipulative		
2	2				1	3	-	1	2	11	Story book, examination, making activities from book	Passive		
-	3	5	3	4	3	-	-	2	4	24	Coloring, Drawing	Art Act.		
5	6	1	1	-	-	7	1	8	4	31	Listening to music, watching movie, checking photo albums	Computer		

Table 2. Frequency distribution of play types of boys.

Frequency			Time of also						
E1	E2	E3	E4	E5	E6	E7	Total (f)	−Type of play	
-	3	-	9	8	4	4	28	Playing house, role play-pretend play	Dramatic
4	5	-	10	11	3	10	43	Blocks, Legos, nopers	Cons-Building
4	4	1	3	4	3	3	22	Tag, hide and seek, turning around, jumping on cushion, ball plays (dodge ball etc.)	Animated
-	1	1	-	1	1	1	5	Jigsaw, puzzle, detachable toys	Manipulative
-	-	-	-	-	1	1	2	Physically contacted fighting plays.	Rough and tumble
2	-	-	1	1	-	1	5	Car, truck, taxi	Vehicles
5	2	6	2	1	-	-	16	Listening to music, watching movie, playing computer plays, looking at photos	Computer
1	-	-	2	2	-	1	6	Bowling	Other

shoot around using the shape they made with toy blocks as if they were guns".

Findings related to playgrounds used by girls and boys

If it cannot be determined during observations and interviews and in free playing situations, it is defined by considering playground, material equipment in the place where the child is playing. The sub-headings of the playground table are determined as such; construction- building area (where the blocks are located), playing house, dramatic play, books, educational toy, puppet, art and science-mathematics centres and computer (PC) centres.

In Table 3, the play areas used by the girls in the kindergarten are scored from 1 to 5 on the data obtained from the interviews and observations.1 point is used to indicate that the child had *never* played in the specified play area, 2 points indicates that the child has played *rarely*, 3 points indicates *sometimes*, 4 points

indicates *frequently* and 5 points indicates the child had *always* played in the specified play area.

When Table 3 is examined, girls spend most of the time in playing house and dramatic playgrounds in a total of 10 h observations, divided into 10 to 15 min intervals. The playing house and dramatic play field is followed by science-mathematics, computer, construction and building playground, book and finally the puppet centre. Due to the lack of music centre and water-sand area in the kindergarten, the children were not observed while they were playing in these areas. Since the arts and educational toy centers were not clearly separated from the other centers, the researcher evaluated the materials on the floor in order to decide which playground it is. The preschool teacher and children gave the following answers to support the findings of the research when they were asked which activity centers girls were playing with during their free time activities:

"They prefer playing house centre more. A few girls prefer educational plays on computer (0,18.12.2014).

	Table 3.	Playground	preferences	of	girls.
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Child	Construction building	Play house	Dramatic play	Book	Educational toy A	۱rt	Science	РС	Puppet
K1	2	4	4	3	2	2	4	4	2
K2	2	4	4	3	2	3	2	4	1
K3	3	2	2	1	2	3	1	2	1
K4	4	4	4	2	2	3	4	2	2
K5	1	2	1	1	2	3	1	1	1
K6	2	4	4	2	2	3	4	1	2
K7	2	4	4	3	1	3	4	4	1
K8	2	4	4	1	2	3	3	2	1
K9	1	2	3	3	1	3	2	4	1
K10	1	4	4	1	2	2	3	4	2

Table 4. Playground preferences of boys.

Child	Construction building	Play house	Dramatic play	Book	Educational toy	Art	Science	PC	Puppet
E1	4	1	2	1	4	1	1	4	1
E2	4	1	2	1	2	1	2	2	1
E3	1	1	1	1	2	1	1	4	1
E4	4	2	3	1	3	1	2	2	2
E5	4	2	3	1	3	1	2	2	2
E6	4	1	2	1	3	1	1	1	1
<u>E7</u>	4	2	2	1	2	1	1	1	1

Playing house and computer are the most (K4, 18.12.2014)".

In Table 4, the play areas used by the boys in the kindergarten were scored from 1 to 5 on the data obtained from the interviews and observations. 1 point was used to indicate that the child had *never* played in the specified play area, 2 points indicate that the child had played *rarely*, 3 points indicates *sometimes*, 4 points indicates *frequently* and 5 points indicates the child had *always* played in the specified play area.

When Table 4 is examined, boys usually play with construction and building playground. The construction and building playground is followed by educational toys, computers, dramatic play, science-mathematics and finally the puppet centres. Due to the lack of music centre and water-sand area in the kindergarten, the children were not observed in these areas. Boys who participated in the survey were found to use mostly construction- building playground in the classroom.

Boys played in the construction and building playground, with large-to-small pieces of lego and blocks. They pretend to be certain characters during play and often interact with their friends and teachers within this area. The preschool teacher and children gave the following answers to support the findings of the research when they were asked which activity centers

that boys play in during their free time activities:

"They love the centre of the blocks ... Usually, blocks attract a lot of attention. As I said, they take educational toys there and create a world (O, 18.12.2014)".

Since the construction and building playground covers a relatively larger area in the centre of the Pitirciklar (the name of the classroom) kindergarten, educational toys and block centres also located side by side with construction and building playground have increased the frequency of boys' presence in these areas and reduced the frequency of girls' presence in these areas. When free time begins, almost all boys converge to the materials found in the construction and building playground and girls prefer to play in the remote areas of the construction and building playground, educational toys and blocks where boys play.

On the other hand, since the arts centre is located in the classroom far away from the construction and building playground and also it is almost nested inside the play housing centre which was preferred by girls, boys usually had no activity in this area. Respectively, dramatic plays and science-mathematics centres were located just next to the art centre. Throughout the observations, girls generally played by carrying the materials from the playing house centre to dramatic play

and math centres. Therefore, while this situation increases the frequency of girls' presence in these areas, it is a factor that reduces the frequency of boys' presence.

Findings related to the playmate preferences of girls and boys

In the research, it was observed that girls usually prefer girls as playmates and boys prefer boys. Therefore gender discrimination is a matter of preference for playmates. In interviews with kindergarten children, they also expressed their preference to play with their fellow creature by using clear expressions. Kindergarten teacher also made a statement which supports the finding that girls play with their fellow mates of the same sex. The children and the teacher indicated their thoughts on children's preferences of playmates and the reasons for these preferences by using the following expressions:

"With girls. Because I am not a boy... (K2, 15.12.2014). With girls... I don't like boys; they always like to play plays meant for only boys. They build towers, fighting and make gun. Sometimes, they spoil our plays. They hurt us while they play fighting (K3, 16.12.2014). I don't prefer to play with girls, playing house is not for boys. Boys don't prefer plays like that (E2, 15.12.2014)".

As it is understood from the expressions earlier mentioned, research findings revealed that children tend to play more with children of same sex. When explaining the reasons why they prefer same sex playmates, both boys and girls emphasized differences in play styles and gender differences. While most of boys emphasized the differences in play types rather than sexual identity, besides play type differences, girls underlined sexual identity when explaining the causes of why they prefer to play with same sex. All girls complained that boys do not comply with the rules of plays and since they tend to play rough plays usually boys hurt girls. Despite that most of the boys indicated that since they like active plays they find girls plays boring. What is interesting is that girls had more sexist expressions than boys. Besides these findings listed by the children, kindergarten teacher stated that the biological differences of boys and girls, the social gender roles in society, gender of the sibling who is a role model for the child and the family type were also influential on children's playmate preferences. When explaining the causes of gender differences on playmate preferences, teacher especially emphasized on biological factors and social gender roles (society reinforce gendered behaviors).

DISCUSSION

In this research, it was determined that there are

gender-related differences between girl's and boy's play behaviors. Girls usually play dramatic plays and boys play construction and building play. The results of this research conclude that girls prefer to play dramatic play (pretend plays) by talking with other girls, whereas boys preferred to play more active, rough-and-tumble play like running, chasing etc. Similar results were achieved from the other studies. The researches revealed the difference in the play types of boys, and girls can be seen from the age of 3. Boys tend to play in a more active, rough-and-tumble manner and this can sometimes leads to being physically aggressive. Whereas girls tend to talk more to each other (Maccoby, 1998; Maccoby and Jacklin, 1987).

In their research on Turkish, German and American children, Güler and Kargı (2008) found that girls prefer playing house and boys prefer to play with wheels, cars; and girls are more likely to be involved in the role in pretend play about house (mother, sibling, child etc.), while boys tend to be involved in the role related with work (engineer, mechanic, etc.). The reason why boys prefer the most construction and building plays among all the play types can be explained by the fact that construction and building play materials are scattered in the centre of the class, boys like to design war toys like guns and boys can use Lego and block toys in order to organize war plays. According to results of this research, while girls like to spend most of their time playing house and dramatic play, boys prefer to play with construction and building play.

In this research, girls mostly played playing house in dramatic play center, whereas boys mostly played in construction and building area (block center etc.). Similar results obtained by Gürpınar (2006) as a result of the study in which the children's preferences of interest centers were examined. In the study, results indicated that gender differences were effective in preferences of centers and there were more interests in some centers (playing house and block). The vast majority of the teachers who participated in the research indicated that boys prefer active centers and girls prefer passive (quiet and calm) centers. In addition, teachers argued that while girls were more likely to prefer playing house centers, boys tended to play in block centers and gender is effective on children' preferences of interest centers.

According to the results of this research, children preferred same sex playmates. Boys and girls underlined differences in play types and gender as the cause of this preference. In this study, when explaining the reason why they tend to play with same sex playmates, girls underlined sexual identity more than boys, and girls had more sexist expressions than boys. Observation findings support these findings. According to observations during two weeks in the classroom, boys tends to play with boys and girls tend to play with girls. Most of the studies on gender differences in children playmate preferences revealed similar result. As its indicated in the research, sex differences in playmate preference become apparent in the preschool years. From as early as 3 years of age,

girls prefer other girls as playmates and boys prefer to play with other boys (Maccoby, 1998; Maccoby and Jacklin, 1987).

Teachers, caregivers and parents are important role models in young children's life. Naturally, young children are influenced by the attitudes, views and behaviors of adults and society around. In this context, it is not possible for children not to be influenced by the social gender role expectations of the society. As a natural consequence of this situation, the play behaviors of children, like play and playmate preferences, may also be influenced by the society. This research's teacher interview findings supports this evaluation. When explaining the causes of gender differences on playmate preferences, teacher especially emphasized on biological factors and social gender roles (society reinforce gendered behaviors). Similar results obtained by some other studies. For example, Tezel Şahin (2003)'s research on views of parents about children's plays and toys revealed that when parents decide to buy a toy, they choose it based on their child's gender and parents direct their children in this way.

There are studies that examined teacher's influences on children's play preferences. For instance, Chapman (2016) conducted a case study of gendered play in preschools which investigated children's play in relation to gender stereotypes and beliefs and practices of educators in preschool settings. Findings suggest that early childhood educators' perceptions of gender do influence children's play. Also research revealed that boys and girls were engaging in different experiences, in seperated girls and boys groups.

However in drawing and dramatic play, boys and girls did play together. Similarly, Golombok, et al. (2008) eximined the stability of sex-typed behavior from the preschool to the middle school years. The investigation involved a general population sample of 2,726 boys and 2,775 girls. As a result of the research, sex-typed behavior increased through age 2.5 (the most sex typed at age), to age 5, with those children who showed the highest levels of sex-typed behavior during the preschool years continuing to do so at age 8.

Conclusion

Research findings revealed important conclusions about play behaviors of young children. According to research findings on gender effects on children's play and playmate preference, all children tends to play more with children of same gender. Another important finding of this research is that girls had more sexist expressions than boys. In later studies, the sexist expressions and behaviors of girls and boys can be examined in depth with the reasons, considering all possible components can have effect on gender based behavior.

In other studies, children's crucial role models are parents. Other studies should count parents in the study group. These research observation findings were just based on free play time, other researches should focus on other activity times during school day.

CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

REFERENCES

- Berenbaum SA, Martin CL, Ruble DN (2008). Gender development. In W. Damon & R. Lerner (Eds) Child and Adolescent Development: An Advanced Course. (647-681). New York, NY: Wiley.
- Chapman R (2016) A case study of gendered play in preschools: how early childhood educators' perceptions of gender influence children's play, Early Child Development and Care 186(8):1271-1284, Doi: 10.1080/03004430.2015.1089435
- Duman G (2010). Türkiye ve Amerika'da anasınıfına devam eden çocukların oyun davranışlarının incelenmesi 'kültürler arası bir çalışma'. Yayınlanmamış Doktora Tezi. Gazi Üniversitesi Eğitim Bilimleri Enstitüsü, Ankara.
- Ekiz D (2003). *Eğitimde araştırma yöntem ve metodlarına giri*ş. Ankara: Anı Yayıncılık.
- Güler T, Kargı E (2008). Play behaviors of preschool children: a crosscultural analysis of play contents. XXIX International Congress of Psychology, International Journal of Psychology 43(3/4):70, Berlin.
- Gürpinar HA (2006). Okulöncesi öğrenime devam eden çocukların tercih ettikleri ilgi köşeleri ve tercih etme nedenleri. Yayınlanmamış Yüksek Lisans Tezi. Anadolu Üniversitesi Eğitim Bilimleri Enstitüsü, Eskişehir.
- Golombok S, Rust J, Golding K, Zervoulis T, Croudace J, Hines M (2008). Developmental trajectories of sex-typed behavior in boys and girls: a longitudinal general population study of children aged 2.5-8 years. Child Development 79(5):1583-1593. doi: 10.1111/j.1467-8624.2008.01207.
- Harbin SJ (2016) Gender differences in rough and tumble play behaviors. International Journal of Undergraduate Research and Creative Activities 8:5. Doi: http://dx.doi.org/10.7710/2168-0620.1080.
- Maccoby EE (1998). The two sexes: growing apart, coming together. (2. baskı). London, England: The Belknap Press of Harvard University Press
- Maccoby EE, Jacklin CN (1987). Sex segregation in childhood. In: H. W. Reese (Ed.), Advances in Child Development and Behavior 20:239-288). New York: Academic Press.
- Orçan M (2008). Sosyal gelişim. E. Deniz (Ed.). *Erken Çocukluk Döneminde Gelişim* içinde (134-188). Ankara: Maya Akademi.
- Rubin K, Fein G, Vandenberg B (1983). Play. In: Mussin, P. (Ed). Handbook of Child Psychology, New York: John Wiley and Sons 4:694-774.
- Sevinç M (2009). Erken çocukluk gelişimi ve eğitiminde oyun. İstanbul: Morpa Yayıncılık.
- Tezel Şahin F (2003). Okul öncesi dönemde oyuncaklar ve oyun materyalleri. *Mesleki Eğitim Dergisi*. Ocak, sayı: 640:78-82.
- Yavuzer H (2006). Çocuk psikolojisi. (29. baskı). İstanbul: Remzi Kitanevi
- Yıldırım A, Şimşek H (2006). Sosyal bilimlerde nitel araştırma yöntemleri. (5. baskı). Ankara: Seçkin Yayıncılık.